

STAFF SUMMARY SHEET

	TO	ACTION	SIGNATURE (Surname), GRADE AND DATE		TO	ACTION	SIGNATURE (Surname), GRADE AND DATE
1	AFRC/ JAV	COORD	<i>CRG</i> GS13 28 May 03	6			
2	AFRC/ CVEA	LOG	<i>Johnson</i> 2213 / 28 May 03	7			
3	AFRC/ CVE	COORD	<i>Colonel</i> 28 May 03	8			
4	AFRC/ ACV	COORD		9			
5	AFRC/ CV	SIGN	<i>John</i> 28 May 03	10			

SURNAME OF ACTION OFFICER AND GRADE

SYMBOL

PHONE

TYPIST'S
INITIALS

SUSPENSE DATE

Pilcher, GS-12

CEVX

71058

jtp

SUBJECT Finding of No Practicable Alternative (FONPA) and Finding of No Significant Impact (FONSI) for the Proposed Construction of a 0.97 Acre Wetland Extension on Wetland G Located on Grissom ARB.

DATE

MAY 22 2003

SUMMARY

1. The 434 SPTG/CEV proposes to construct a 0.97 acre mitigation wetland directly south of the existing Wetland G. The purpose of this project is to comply with state and Air Force regulations and policies. An Environmental Assessment (EA) prepared by Grissom ARB resulted in a FONSI.
2. The FONPA was required because Proposed Action (Tab 1) would impact the existing Wetland G.
3. The 434 SPTG/CEV received all the required permits, mitigation plan approval, notified the appropriate agencies and put the document out for public review.
4. The 434 ARW/CC has been briefed and concurred on the EA and FONPA/FONSI.
5. RECOMMENDATION. AFRC/CV sign the Finding of No Significant Impact at Tab 1.

Hilton F. Culpepper
HILTON F. CULPEPPER
The Assistant Civil Engineer

1 Tab
AF Form 813 w/Atch

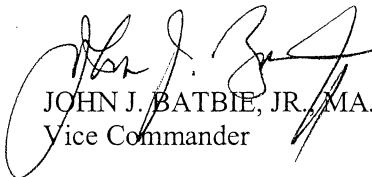
Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE MAY 2003		2. REPORT TYPE		3. DATES COVERED 00-00-2003 to 00-00-2003	
4. TITLE AND SUBTITLE Finding of No Practicable Alternative (FONPA) and Finding of No Significant Impact (FONSI) for the Proposed Construction of a 0.97 Acre Wetland Extension on Wetland G Located on Grissom ARB				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) 434 Air Refueling Wing,Environmental Flight,Grissom ARB,IN,46971				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 18	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

5.0 FINDING OF NO PRACTICABLE ALTERNATIVE

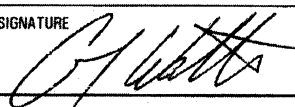
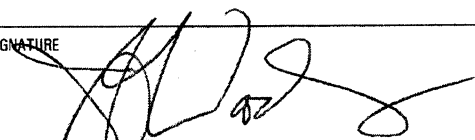
Pursuant to Executive Order 11988 and taking the information provided in the attached EA we find there is no practicable alternative to constructing the proposed mitigation wetland. The Proposed Action does take practicable measures to minimize harm to the existing wetland. Therefore, a Finding of No Practicable Alternative is issued for the Proposed Action

APPROVED

DATE


JOHN J. BATBIE, JR., MAJ GEN, USAF
Vice Commander

28 MAY 03

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS			Report Control Symbol RCS: C0338	
INSTRUCTIONS: Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).				
SECTION I - PROPONENT INFORMATION				
1. TO (Environmental Planning Function) 434 MSG/CEV	2. FROM (Proponent organization and functional address symbol) 434 MSG/CEV	2a. TELEPHONE NO. 2-4546		
3. TITLE OF PROPOSED ACTION Construction of Mitigation Wetland				
4. PURPOSE AND NEED FOR ACTION (Identify decision to be made and need date) To comply with IDEM and AF Policy and Regulations				
5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DDPAA) (Provide sufficient details for evaluation of the total action.) Construct a 0.97-acre wetland extension to existing Wetland G				
6. PROPONENT APPROVAL (Name and Grade) Cory Walters, GS-09	6a. SIGNATURE 		6b. DATE 18 APR 03	
SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY. (Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U = unknown effect)			+	0
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE (Noise, accident potential, encroachment, etc.)			X	
8. AIR QUALITY (Emissions, attainment status, state implementation plan, etc.)			X	
9. WATER RESOURCES (Quality, quantity, source, etc.)			X	
10. SAFETY AND OCCUPATIONAL HEALTH (Asbestos/radiation/chemical exposure, explosives safety quantity-distance, bird/wildlife aircraft hazard, etc.)			X	
11. HAZARDOUS MATERIALS/WASTE (Use/storage/generation, solid waste, etc.)			X	
12. BIOLOGICAL RESOURCES (Wetlands/floodplains, threatened or endangered species, etc.)			X	
13. CULTURAL RESOURCES (Native American burial sites, archaeological, historical, etc.)			X	
14. GEOLOGY AND SOILS (Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)			X	
15. SOCIOECONOMIC (Employment/population projections, school and local fiscal impacts, etc.)			X	
16. OTHER (Potential impacts not addressed above.)			X	
SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION				
17.	<input type="checkbox"/>	PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # _____ ; OR		
<input checked="" type="checkbox"/>	X	PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.		
18. REMARKS				
19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION (Name and Grade) Jeffrey A. Woodring Chief, Environmental Flight		19a. SIGNATURE 		19b. DATE 18 APR 03

ATTACHMENT 1 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

1.0 PROPOSED ACTION

1.1 Introduction

The proposed action is to construct a 0.97-acre wetland extension on Wetland G located on Grissom ARB. Wetland G is located within the quantity distance zone around the munitions bunker. The location of Grissom ARB is shown in Figure 1. The location of Wetland G and the mitigation area are shown in Figure 2.

1.2 Construction Projects

A mitigation wetland will be constructed directly south of existing Wetland G. Wetland G is currently 0.16 acres in size. The mitigation wetland will be 0.97 acres.

1.3 434 ARW Operations

The 434 ARW currently trains personnel in the cantonment area at Grissom ARB during monthly Reserve UTAs and annually deployed at locations. Training is provided in individual skills, contingencies, special capabilities, field activities, ancillary subjects, and mobility (Comerford, R., 1998). Though UTAs are only scheduled on a monthly basis, full-time permanent personnel occupy the cantonment area during normal Grissom ARB daily operating hours. Under the Proposed Action no change in 434 ARW operations would occur.

1.4 Personnel Summary

The 434 ARW currently employs 614 civilian and 1,300 Reserve personnel (Prior, T., 2003). Under the Proposed Action no change in current 434 ARW employment would occur.

1.5 Schedule and Funding

The mitigation wetland would be constructed during CY 2003. The construction will be completed in house.

2.0 WETLAND Q EXTENSION ALTERNATIVE

Adoption of this alternative would mean the 0.97-acre extension would be built in the clear zone across US 31 on the 05 end of the runway. This location is directly in line with the active runway during take-offs and landings. IDEM regulations state that grass height cannot be maintained until the mitigation monitoring is over. Construction at this location could cause birds to become an extremely dangerous hazard during take-offs and landings. HQ AFRC and the 434 ARW have considered this alternative; however,

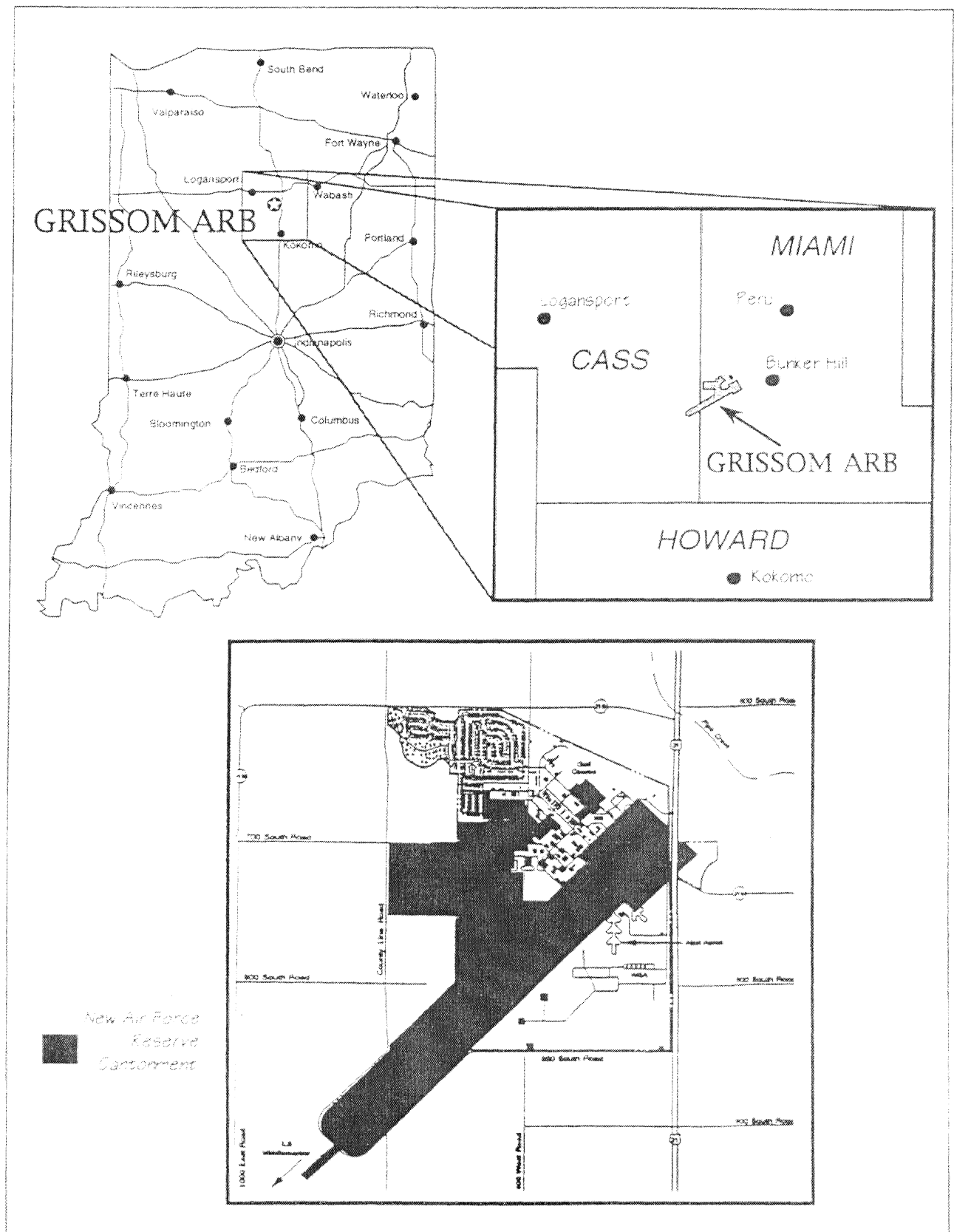


Figure 1 Location of Grissom Air Reserve Base

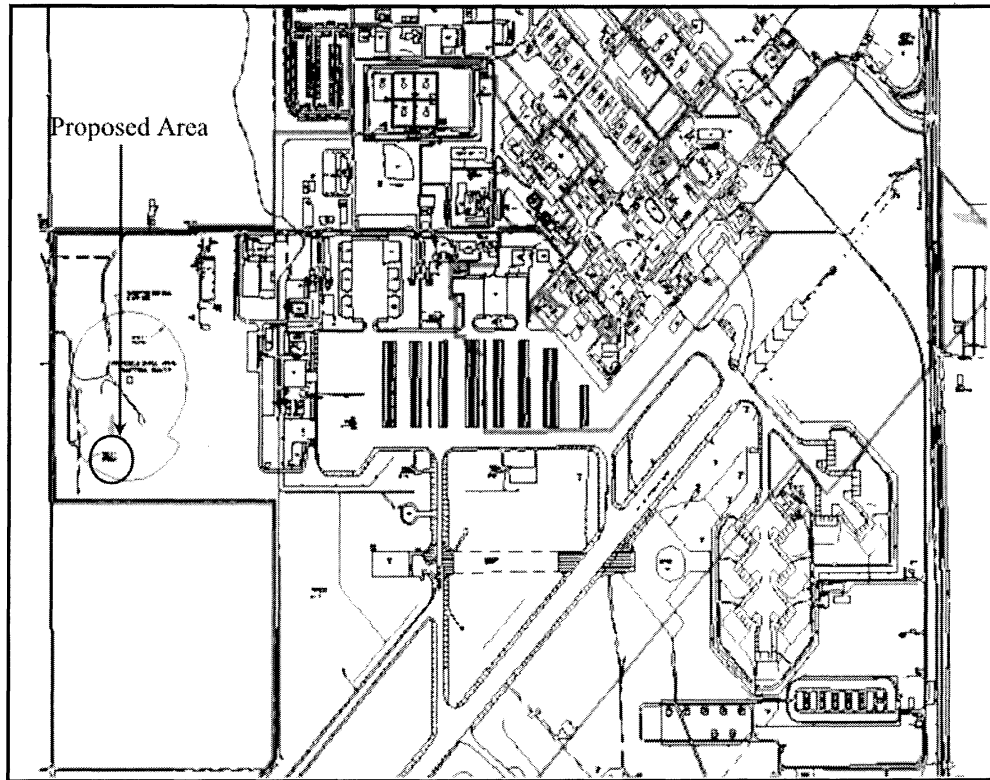


Figure 2 Location of Proposed Construction Project

construction in this location would cause to great a safety hazard for pilots. This is not a viable alternative; as a result, this alternative will not be carried forward for further analysis.

3.0 NO-ACTION ALTERNATIVE

Adoption of this alternative would mean non-compliance with the Indiana Department of Environmental Management. The construction of this wetland is required by the State of Indiana. Failure to construct this wetland in the allotted time frame would result in fines and additional action against Grissom ARB by the State. NEPA requires the No-Action Alternative be carried forward for further analysis.

ATTACHMENT 2 AFFECTED ENVIRONMENT

1.0 PHYSICAL AND NATURAL SETTING

1.1 Grissom Air Reserve Base

Grissom AFB was established in 1942 as the Bunker Hill Naval Air Station and remained an active naval training site throughout World War II. Bunker Hill Naval Air Station was deactivated in 1946, and the land and facilities were leased to local business and agricultural interests. The site was reactivated in 1954 as Bunker Hill AFB and assigned to Tactical Air Command. During the next 40 years, the base underwent several additional transitions. The base came under the control of Air Mobility Command in 1992 with the disestablishment of the Strategic Air Command.

Pursuant to the Base Closure and Realignment Act of 1990, Grissom AFB was scheduled for realignment in October 1994. As a result of this realignment decision the HQ AFRC will retain approximately 1,312 acres as a cantonment, designated as the Grissom ARB, to conduct readiness training for the 434 ARW. Grissom ARB has one active runway and several aviation support facilities. Runway 5/23 is 12,500 feet in length and 200 feet wide [Dept. of the Air Force, 1994(a)]. The runway has an Instrument Landing System for aircraft use during periods of inclement weather and aircraft arresting barriers for emergency stops.

1.2 Grissom Air Reserve Base and the Surrounding Region

Situated in the north-central region of the U.S., the Peru area is located in the north-central portion of Indiana and is within approximately a 250-mile radius of 17 percent of the total U.S. population. The city is situated approximately 69 miles north of Indianapolis, Indiana. Located in Miami County, the City of Peru does not lie within a Metropolitan Statistical Area (MSA) (Rockwell, S., 1994). Miami County had a 2000 population of 36,0862 (BOC, 2003). Population for Peru City was 12,994 in 2000, which is the most current population figure available (BOC, 2003).

2.0 ENVIRONMENTAL SETTING

2.1 Meteorology and Air Quality

2.1.1 Meteorology

The climate in north-central Indiana is temperate, with warm humid summers and cold winters. Variations in temperature are the result of maritime tropical air from the Gulf of Mexico in the summer and continental polar air from the northern latitudes in the winter. The local weather is characterized by wide temperature variations from winter to summer and an even distribution of precipitation throughout the year. Average temperatures range from a minimum of 20 degrees Fahrenheit in the winter to a maximum of 80 degrees in the summer. Precipitation averages approximately 40 inches per year. The average annual wind speed is approximately ten miles per hour (mph) from the northwest (HQ AFBDA/BD, 1993).

2.1.2 Air Quality

Air quality is not monitored in the Grissom ARB area by IDEM, although the area is classified as in attainment and is not designated as a maintenance area for any NAAQS pollutant.

The closest air quality monitoring stations are located in Allen County, approximately 50 miles northeast of Grissom ARB. Allen County was established as the base area for determining potential air quality impacts at Grissom ARB in the document, *Final Environmental Impact Statement Disposal and Reuse of Grissom Air Force Base, Indiana* [Dept. of the Air Force, 1994(a)].

EPA rules now require each state SIP to have a conformity applicability check for any proposed Federal action in order to compare the Proposed Action direct and indirect pollutant emissions with current, baseline emissions [40 CFR 51.853(b)]. The threshold limit used in a conformity determination is 100 tons per year increase in any NAAQS emissions. In the difference between the proposed and current emissions Proposed Action is considered to have no negative impact on air quality. If the area is designated as a maintenance or a non-attainment area and threshold limits are exceeded, then additional air quality modeling is required to show the potential impact of the Proposed Action on air quality in the region.

In December 1999, IDEM issued a Title 5 Air operating Permit to Grissom ARB. In August 2000 Grissom ARB permanently shut down the central heating plant, which has greatly reduced the potential to emit for the base. Grissom was issued a Federally Enforceable State Operating Permit (FESOP) on September 11, 2001 and the Title 5 permit was revoked.

2.2 Noise

Grissom ARB completed an Air Installation Compatibility Use Zone (AICUZ) Study for the assigned KC-135R aircraft [Grissom ARB]. The AICUZ Study provides data and information regarding existing Day-Night Average A-Weighted Sound Levels (DNL or Ldn) on or near Grissom ARB. The results of the AICUZ Study show that noise levels on the flight line are below 70 decibels (dB) and below 65 dB in all areas adjacent to the flight line [Grissom ARB, 1995]; however, on occasion, industrial noise exceeds 70 dB for short periods due to the operation of emergency generators and aircraft ground support equipment. These operations generally do not exceed 30 minutes in duration and are normally scheduled during daylight hours of 7AM to 5PM.

2.3 Wastes and Stored Fuel

Wastes generated at Grissom ARB can be classified into two types—solid waste and hazardous waste. Solid waste may include aluminum cans, plastics, glass, paper products, and other non-hazardous miscellaneous wastes. Hazardous wastes may include solvents, oils, fuel, paints and thinner, and other miscellaneous wastes.

2.3.1 Solid Waste

Approximately ½ ton of solid waste per day is generated from various activities within the cantonment [Woodring J., 2000]. This waste is placed into dumpsters located throughout the base, collected by a private contractor, and transported from the base to either Oakridge Recycling and Disposal Facility or the Wabash landfill. In order to reduce the amount of solid wastes requiring disposal, Grissom ARB has initiated a recycling program for aluminum cans, plastics, glass, wood, and paper products [Woodring, J., 1994].

2.3.2 Hazardous Waste

Hazardous waste generated at Grissom ARB include spent solvents, used oils and fuels, waste paints and thinner, absorbent material contaminated with oils and fuel, and other miscellaneous wastes. Overall management of hazardous wastes at Grissom ARB is performed by the 434th Mission Support Group (MSG)/ Civil Engineering Environmental (CEV) Office and

is outlined in Grissom ARB's *Hazardous Waste Management Plan* (HWMP). Each unit of the 434 ARW assigns accumulation points located throughout the base. Accumulation point managers are responsible for waste identification, inspections, labeling, and turn-in documentation. Annual training for satellite accumulation point managers is conducted by the MSG/CEV [Woodring, J., 2002].

Once the amount of hazardous waste being accumulated at a satellite accumulation point reaches 55 gallons, the container(s) are relocated to a less than 90-day accumulation point operated by the 434 MSG/CEV in Building 688. The waste is then manifested through Defense Reutilization and Marketing Office (DRMO), which contracts for ultimate recycling or disposal of the wastes. The base also has several solvent generation points that are serviced Safety Kleen Corporation, which directly removes and replaces these solvent drums on a periodic basis and recycles the waste solvents at its own facility [Woodring, J., 2000].

In accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, the DoD has initiated an Installation Restoration Program (IRP) to investigate environmental contamination present at DoD facilities. The purpose of the IRP program is to identify, characterize, and remediate hazardous material contamination sites that may threaten human health or the environment. Grissom ARB cantonment has six active sites designated for inclusion in the IRP. These sites include one landfill (closure pending), six valve boxes on the hydrant refueling system, former location of eight USTs associated with the hydrant system, refueler maintenance oil water separator, six additional USTs associated with the hydrant system, and oil/water separator at Building 741. The proposed action is not anticipated to impact these sites.

2.3.3 Stored Fuel

Fuel for aircraft operations at Grissom ARB is stored in three aboveground storage tanks with a total capacity of 1.5 million gallons. This storage area is bermed and diked to prevent the escape of any released material. The fuel is transferred from the aboveground tanks to six 50,000 gallon underground storage tanks, which supply the hydrant refueling system. The base also has six 8,000 gallon refueling trucks that are used to refuel transient aircraft. These trucks are normally parked in the fuel storage area. Emergency procedures for releases of stored fuel from tanks or trucks are outlined in the 434 ARW's Hazardous Material Emergency Planning and Response (HAZMAT) Plan [Dept. of the Air Force, 1994(a)].

2.4 Water Resources

Grissom ARB is located in the Pipe Creek drainage area of the Wabash River Basin in north-central Indiana. Surface waters include Pipe Creek, Little Deer Creek, several drainage ditches, and a small lime settling pond located on base. Surface water flows in a northern and western direction. According to base records and the Federal Emergency Management Administration, there are no 100-year flood encroachment areas. In addition, water quality tends to be good and surface water is used for watering crops and livestock [Dept. of the Air force, 1994(a)].

The water table is unconfined and is seasonally at or above ground level in many locations. The principle aquifer in the region is the Liston Creek Limestone. A well-developed secondary porosity has evolved along joints and bedding planes. Migration rates in the limestone aquifer range from moderate to rapid, depending locally on dissolution cavities. Overlaying the Liston Creek Limestone are glacial deposits with a moderate permeability, which could offer a secondary water supply. Recharge to the overlying glacial deposits is by rainfall. Migration rates in the glacial deposits range from slow in clay layers to rapid in sand/gravel units. The general

)

)

flow of the groundwater follows the surface topography and flows in a northeast direction, ultimately discharging in Pipe Creek [Dept. of the Air Force, 1994(a)].

Drinking water is supplied to Grissom ARB from Peru Utilities which operates the former Grissom Air Force Base Water Treatment Plant. Groundwater is pumped from several groundwater wells located outside the military cantonment area. These wells range in depth from 125 to 180 feet and have a total pumping capacity of 4.9 million gallons per day (mgd). In 1999, anticipated water demand at Grissom ARB was approximately 0.035 mgd of water for the military cantonment area [Dept. of the Air Force, 1994(a)]. The groundwater is softened, chlorinated, fluoridated, and treated for iron at the water treatment plant on base. This plant was constructed in 1942 and subsequently upgraded in 1986 to a capacity of 2.2 mgd [Dept. of the Air Force, 1994(a)].

The storm water collection system consists of swale ditches, 34 miles of underground pipe and structures, and legal open drains. The swales collect surface runoff water in open areas and route flow to underground receiving structures. The water flow is transported through underground conduits, which discharge the water into roadside and/or finger ditches, leading to the open drains. Storm water discharges exit the Base property primarily to the north via McDowell Ditch and the Cline Ditch. Storm water discharges are permitted under the General Permit Rule for storm water discharge associated with industrial activity. The general permit number assigned to the base is INR00G084. Grissom has seven storm water outfalls permitted under the General Permit. In 1997, Grissom submitted an Individual storm water permit application for aircraft deicing. In 1999 IDEM responded to the application and states the base was required to submit an Industrial NPDES Wastewater discharge permit for aircraft deicing. Grissom subsequently responded that an Industrial Wastewater Permit was not appropriate for the incidental amounts of deicing fluid that may be discharged, since all aircraft deicing currently takes place at one of two aircraft deicing pads.

The wastewater treatment plant located outside the cantonment was constructed in the early 1940s with upgrades and modifications continuing through 1993. Currently the plant has both primary and secondary treatment with a rated capacity of 1.2 mgd and a minimum flow rate of 0.3 mgd. This plant was designed to serve the entire base including family housing prior to realignment actions. Currently, the facility serves the Grissom ARB cantonment, the Miami County Correctional Facility, and industrial facilities within the former Grissom Air Force Base. A force main has been installed to isolate discharges from the cantonment area from other discharges to the wastewater treatment plant. Daily flows from the cantonment area are approximately 0.03 to 0.1 mgd during storm events. During low flow periods the treated outfall can be recycled to maintain the hydraulic flow. The plant also has industrial wastewater pretreatment that feeds into the main plant with separate collection systems for industrial and domestic wastewater that extend into the AFRES cantonment. One septic tank is located in the AFRC cantonment at the aircraft control tower, which is in a remote location on the runway.

2.5 Earth Resources

2.5.1 Physiography

The The physiography at Grissom ARB is characterized by nearly level plains with gently rolling hills. Elevations at the base range from 780 feet above mean sea level (MSL) near the northern base boundary to 810 feet above MSL near the southeastern base boundary [Dept. of the Air Force, 1994(a)].

2.5.2 Geology

The geology associated with Grissom ARB and the surrounding area is characterized by unconsolidated Pleistocene glacial deposits and recent alluvium underlain by shale, limestone, and dolomite deposited during the Devonian and Silurian Periods. The glacial till consists mainly of calcareous silty clays interspersed with discontinuous layers of sands and gravel. The bedrock in the vicinity of Grissom ARB consists of four rock units: Hamilton Group Limestones (absent at the base), Kokomo Limestone, Liston Creek Limestone, and Mississinewa Shale. The depth below land surface to these units in the vicinity of the base varies from surface exposures along Pipe Creek to depths of more than 130 feet [Dept. of the Air Force, 1994(a)].

Grissom ARB lies within a seismic risk zone that is classified as Seismic Zone 1, as defined by the International Conference of Building Officials *Uniform Building Code*. Seismic Zone 1 represents low potential risk for large seismic events [Dept. of the Air Force, 1994(a)]. No major faults or fracture zones have been mapped on or near the base (Stover, C. et al., 1987).

2.5.3 Soils

Soils at Grissom ARB belong to the Fincastle-Treaty association, which consists of deep, nearly level, poorly drained, medium textured soils formed on upland glacial till plains. Fincastle and Treaty soils are characterized as silty loams containing clay, silt, and sand particles. Fincastle soils are on the higher lying broad flats and low ridges, and treaty soils are located in the drainage ways. Other small areas of the base include Blount, Miami, and Shoals soil series [Dept. of the Air Force, 1994(a)].

The permeability of the soils at Grissom ARB is moderately low, which results in moderate run-off and slight erosion potential. Wetness is the main limitation of the soil, with ponding and inundation of the Treaty silt loam common during winter and spring. In addition, the silty loams have moderate to high shrink-swell potential and high frost heaving potential [Dept. of the Air Force, 1994(a)].

2.6 Biological Resources

2.6.1 Vegetation

Grissom ARB is located within the Beech-Maple Forest section of the Eastern Deciduous Forest Province (Bailey, R., 1980). Vegetation in the province is temperate deciduous forest, characterized by tall, broadleaf trees that provide a continuous and dense canopy in summer but shed their leaves completely in winter. Since the onset of agricultural development, much of the forest has been logged and replaced with agricultural fields (e.g., corn, soybean). All that remains of the forest in the vicinity of Grissom ARB are scattered remnant stands [Dept. of the Air Force, 1994(a)]. The vegetation on Grissom ARB is mostly disturbed grassland and landscaped areas. Most of the undeveloped areas have been seeded with grasses and are mowed regularly. Some common species of seeded grassed include Kentucky bluegrass, brome, meadow fescue, and bentgrass. There are no agricultural activities on base.

2.6.2 Wildlife

Wildlife in the vicinity of Grissom ARB includes species associated with urbanized areas, agricultural lands, beech-maple forests, and stream and wetland habitats. Common species include opossum, woodchuck, Gray squirrel, Eastern cottontail, Wood duck, Common snipe, Red-tailed hawk, Painted turtle, Common garter snake, American toad, Bullfrog, Creek chub, Striped shiner, and silvery minnow. Most of the base property consists of developed, urbanized land and/or mowed lawns. Wildlife diversity is low in these areas and limited to animals tolerant of human influences [Dept. of the Air Force, 1994(a)]. Wildlife found in the dense understory of wooded areas on the southeast side of the base include Eastern chipmunk, White-footed mouse,

White-breasted nuthatch, Yellow-rumped warbler, White-throated sparrow, Wood thrush, and Downy woodpecker.

2.7 Threatened and Endangered Species

Table 1 lists Federal and state threatened and endangered species, as well as species that are candidates for listing, that occur in the vicinity of Grissom ARB. During the last field survey in June 2002, none of these species were observed on base. The badger is state-listed as threatened and is known to occur in the open farmlands near the base. Badgers are not expected to reside on base because of human disturbance but may utilize base land for foraging purposes [Dept. of the Air Force, 1994 (a)].

Table 1. Threatened, Endangered, and Candidate Species Potentially Occurring in the Vicinity of Grissom ARB

SPECIES	FEDERAL	STATE	PROBABILITY OF OCCURRENCE
Badger (<i>Taxidea taxus</i>)	-	T	Unlikely to reside on-base, but may utilize it for foraging purposes
Bobcat (<i>Lynx rufus</i>)	-	E	Not expected on base due to lack of habitat
Barn owl (<i>Tyto alba</i>)	-	T	Unlikely to occur on base due to lack of hollow trees or abandoned buildings
Clubshell mussel (<i>Plerobema clava</i>)	C2	E	Not likely to occur on base or in nearby Pipe Creek
Eastern fanshell pearly mussel (<i>Cyprogenia stegaria</i>)	E	E	May occur on base or in nearby Pipe Creek
Indiana bat (<i>Myotis sodalis</i>)	E	E	Not expected on base due to lack of habitat
Rabbitsfoot mussel (<i>Quadrula cylindrica cylindrica</i>)	-	E	May occur in nearby Pipe Creek
Rayed bean mussel (<i>Villosa fabalis</i>)	C2	-	May occur in nearby Pipe Creek
Snuffbox mussel (<i>Epioblasma triquetra</i>)	C2	E	May occur in nearby Pipe Creek

Source: Dept. of the Air Force, 1994(a)

Notes: Federal status determined by USFWS: E - Endangered; C2- Category 2

State status determined by IDNR: E - Listed as endangered; T - Listed as threatened

2.8 Socioeconomic Resources

Grissom ARB is located on the west side of U.S. Highway 31 within a rural area of Miami and Cass Counties, approximately 6 miles south of Peru and 18 miles north of Kokomo. Small farming communities within the area include Bunker Hill, Walton, Galveston, and Onward [Grissom ARB, 1995]. The area economy is driven by two sectors: manufacturing and agriculture. Manufacturing firms are primarily situated within the Kokomo area. Agricultural activities occur throughout the region, with most of the land within the Grissom ARB environs being used for grain production, primarily corn [Grissom ARB, 1995].

Table 2 presents demographic characteristics in terms of total population, growth, and population density for the City of Peru and Miami County. Grissom ARB and the surrounding area are not located within a MSA (Rockwell, S., 1994). In Miami County, population has remained relatively unchanged for the last 10 years. The 2000 population for the City of Peru was 12,994, which represents an increase of 1.18 percent over the 1990 population of 12,843. In addition, population density is higher in Peru, reflecting the concentration of urbanized areas within city limits.

Table 2 1990-2000 Demographic Characteristics for the Area

COUNTY AND CITY	POPULATION		PERCENT CHANGE 1990-2000	2000 POPULATION DENSITY (Persons per Sq. Mi.)
	1990	2000		
Miami County	36,900	36,082	-2.22	96.1
Peru City	12,843	12,994	1.18	2815.5

Source: BOC, 2003.

Note: "NA" represents not available.

Housing characteristics for the area include total housing units and vacancy rates. From 1990 to 2000, the total number of housing units for Miami County increased slightly from 14,639 to 15,299. During the same period of time, the total number of housing units for the City of Peru increased from 5,732 to 5,943. In 2000, homeowner and rental vacancy rates for Miami County were 1.7 to 7.4 percent, respectively. In addition, 1990 homeowner and rental vacancy rates for the City of Peru were 2.0 and 10.6 percent respectively (U.S. DOC, 1994).

From 1990 to 2000, total personal income and per capita personal income for Miami County increased. Per capita personal income for Miami County increased from \$14,612 to \$17,726 (BOC, 2003). While many areas suffered from base closure decisions, a strong economic development plan for Grissom ARB may stimulate the Miami and Cass County economies [Grissom ARB, 1995].

As an Air Force Reserve installation, the base employs a limited number of full time reservists and civilian personnel. Approximately 1,914 personnel, including 614 civilian and 1,300 Reserves are employed at Grissom ARB (Prior, T., 2003).

2.9 Cultural Resources

2.9.1 Archaeology

In 1993, a cultural resource investigation determined there were no archaeological sites present that are listed or eligible for listing on the National Register of Historic Places (NRHP) [Dept. of the Air Force, 1994(a); Dept. of the Air Force, 1994(b)]. Additionally, no fossil remains have been found on the base [Dept. of the Air Force, 1994(a)].

2.9.2 Historical Resources

There are no listed or eligible NRHP World War II era buildings present in the Grissom ARB cantonment. There is one Cold War era building (Bldg. 600) present in the cantonment that is eligible for listing on the NRHP. Consultation with Native American tribal representatives during the preparation of the *Grissom AFB Disposal and Reuse EIS* concluded that there are no known sites of special concern on or near the Grissom ARB cantonment [Dept. of the Air Force, 1994(a)].

2.10 Land Use Resources

Grissom ARB is located in north-central Indiana, approximately 65 miles north of Indianapolis. The base is located in Miami County, although the most southwestern portion of

Runway 05/23 crosses into Cass County. The portion of Grissom ARB within Miami County has not been zoned by Miami County; however, the portion of the base within Cass County has been zoned as agricultural uses by Cass County, even though the comprehensive plan identifies the area for military airfield use. The military cantonment consists of approximately 1,312 acres (Gumm, D., 2000). This area consists of the airfield, flight line apron, six nose dock hangars, bulk fuel storage facility, aircraft maintenance shops, several dormitories, reserve administration offices, fitness center, equipment barns, and base supply warehouses [Dep. of the Air Force, 1994(a)]. The Indiana Department of Corrections has constructed and is currently operating the Miami County Correctional Facility to the south of Grissom Air Reserve Base.

2.11 Traffic

Regional access to Grissom ARB is provided by U.S. 31, a north-south highway that serves as a major transportation connector to Indianapolis. U.S. Highway 31 is a four lane, divided highway that is adjacent to the eastern boundary of the base and provides access to State Highway (SH) 218, which runs in an east-west direction to the north of the cantonment. U.S. 24 is an east-west highway that serves as a major transportation connector between the city of Fort Wayne and Grissom ARB. SH 218 (east of U.S. 31) is a two lane rural highway, connecting U.S. 31 to SH 19. SH 218 has a capacity of 2,000 vehicles per hour (vph) [Dept. of the Air Force, 1994(a)]. The volume of vehicles passing through the gates during peak-hour is expected to be approximately 300 vph (McManus, J., 1995).

2.12 Health and Safety

Grissom ARB has an established ground safety and accident prevention program operated through the Base Safety and the Environmental Health Offices that are monitored by the Safety Officer, Bioenvironmental Engineer, or the base Environmental Health Office. These programs are established in accordance with USAF directives and policy guidance. Both programs have extensive coverage of safety and health issues including noise protection, munitions use and storage, base traffic flow, construction safety practices, monitoring of health hazards, and annual physicals of personnel operating in an industrial environment. During the prior year, the base did not have a reportable safety incident or health related issue.

ATTACHMENT 3 FINDING OF NO PRACTICABLE ALTERNATIVE

1.0 NAME OF ACTION

Construction of a 0.97-acre mitigation wetland extension to Wetland G, an existing wetland.

2.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

The Proposed Action of the Department of Defense (DoD), through HQ AFRC, is to implement the construction of a 0.97-acre mitigation wetland, an extension of the existing Wetland G. The purpose of this project is to comply with state and Air Force regulations and policies. No changes in aircraft utilization would occur at Grissom ARB. Alternatives to the Proposed Action evaluated in the Environmental Assessment include the Wetland Q extension alternative and the no-action alternative.

The Wetland Q extension alternative poses to great a safety risk for aircraft and pilots. Due to the need to maintain grass height to eliminate birds and to the location of the wetland in reference to the runway, this alternative is not feasible.

The no-action alternative would result in additional fines and action against Grissom ARB by IDEM. The no-action alternative is not feasible.

3.0 SUMMARY OF ENVIRONMENTAL EFFECTS

Environmental analysis of the land use resources, air quality, health and safety, hazardous materials/waste, cultural resources, socioeconomic resources and earth resources indicates that the Proposed Action would not significantly affect these areas. In terms of water resources the construction of the proposed wetland would increase the quality of the groundwater and potentially the surface water by filtering and removing unwanted pollutants. The proposed wetland would also serve as a source to recharge to groundwater and local aquifer. In terms of biological resources the proposed wetland would increase the natural vegetation and provide additional habitat for local wildlife. Based on as Environmental Assessment (EA), the potential impacts from the Proposed Action on the natural and man-made environment would be beneficial.

4.0 FINDING OF NO SIGNIFICANT IMPACT

Based on a review of the facts and analysis contained in the above environmental assessment conducted in accordance with the requirements of the *National Environmental Policy Act of 1969* and the Air Force Instruction 32-7061, the *Environmental Impact Analysis Process*. The environmental assessment concluded that no significant impact would result from the Proposed Action. Therefore, a Finding of No Significant Impact is issued for the Proposed Action, and an Environmental Impact Statement does not need to be prepared.

5.0 FINDING OF NO PRACTICABLE ALTERNATIVE

Pursuant to Executive Order 11988 and taking the information provided in the attached EA we find there is no practicable alternative to constructing the proposed mitigation wetland. The Proposed Action does take practicable measures to minimize harm to the existing wetland. Therefore, a Finding of No Practicable Alternative is issued for the Proposed Action

APPROVED

DATE

REFERENCES

- Bailey, R., 1980. Description of the Ecoregions of the United States, Washington, D.C.: U.S. Forest Service. (ISBN: Misc. Publication No. 1391)
- BOC, 2003. www.census.gov/main/www/cen2000.html
- Comerford, R., 1995. Personal communication. Grissom ARB, IN: 434 SPTG/CEP.
- Comerford, R., 1998. Personal communication. Grissom ARB, IN: 434 SPTG/CEP.
- Comerford, R., 2000. Personal communication. Grissom ARB, IN: 434 SPTG/CEP.
- Dept. of the Air Force, 1994 (a). Final Environmental Impact Statement: Disposal and Reuse of Grissom Air Force Base, Brooks AFB, TX: Environmental Planning Division.
- Dept. of the Air Force, 1994 (b). Cultural Resources Inventory and Evaluation of Historic Buildings and Structures, Grissom Air Force Base. Colton, CA: The Earth Technology Corporation.
- GRA, 1993. Final Draft Grissom Air Force Base Reuse Plan, Peru, IN: Grissom Community Redevelopment Authority.
- Grissom ARB, 1995. *AICUZ STUDY, Volume I*, Grissom ARB, IN: 434 ARW/CC.
- Grissom ARB, undated. Grissom Air Reserve Base: MILCON Program.
- Gumm, D., 2000. 434 SPTG/CER. *Personal communication*.
- HQ AFBDA/BD, 1993. Headquarters Air Force Base Disposal Agency (HQ AFBDA/BD), Installation Restoration Program Remedial Investigation for 305th SPTG/DE (Draft): Volume I. St. Louis, MO: Environmental Science & Engineering, Inc.
- McManus, J., 1995. 434th Security Police Division. *Personal communication*.
- Monitor Leadership Directories, Inc. 1994. State Yellow Book, vol. VI, no. 1. New York, NY: Spring 1994.
- Prior, T., 2003. Personal Communication. Grissom ARB, IN: 434 ARW/DPCS.
- Robinson, D., 2000. *Personal communication*. Grissom ARB, IN: 434 MSS/DPMSA.
- Rockwell, S., 1994. Personal communication. Washington, D.C.: Department of Commerce.
- Stover, C. et al., 1987. Seismicity Map of the State of Indiana, Miscellaneous Field Studies Map, Reston, VA: U.S. Geological Survey. (1:1,000,000).
- U.S. DOC, 1994. U.S. Department of Commerce, Census of Population and Housing. Washington, D.C., 1994.
- Woodring, J., 1998. *Personal communication*. Grissom ARB, IN: 434 SPTG/CEV.
- Woodring, J., 2000. *Personal communication*. Grissom ARB, IN: 434 SPTG/CEV.
- Woodring, J., 2002. *Personal Communication*. Grissom ARB, IN: 434MSG/CEV.

LIST OF PREPARERS

This EA has been prepared by the Environmental Flight of the 434th Air Refueling Wing, Grissom ARB, Indiana. The following persons contributed to its preparation:

NAME	education/expertise	environmental Assessment Contribution
Jeffrey A. Woodring, P.E	B.S. Civil Engineering; 17 years of experience in master planning, environmental management, and facility engineering	Program Manager – Entire document
Cory M. Walters	B.S. Environmental Science; 1 years experience, environmental compliance, environmental assessments, cultural/natural resources, storm water.	Entire document